

SEQUENCE LISTING

<110> BOYLE, WILLIAM

HSU, HAILING

<120> RECEPTOR FROM TNF FAMILY

<130> A-570B

<140> NOT YET ASSIGNED

<141> 2001-02-12

<150> 60/181,800

<151> 2000-02-11

<160> 52

<170> PatentIn version 3.0

<210> 1

<211> 1173

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (143)..(997)

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ccttcaaagt tcaagtagtg at atg gat gac tcc aca gaa agg gag cag tca	172
Met Asp Asp Ser Thr Glu Arg Glu Gln Ser	
1 5 10	

cgc Arg	ctt Leu	act Thr	tct Ser	tgc Cys 15	ctt Leu	aag Lys	aaa Lys	aga Arg	gaa Glu 20	gaa Glu	atg Met	aaa Lys	ctg Leu	aag Lys 25	gag Glu	220
tgt Cys	gtt Val	tcc Ser	atc Ile 30	ctc Leu	cca Pro	cgg Arg	aag Lys	gaa Glu 35	agc Ser	ccc Pro	tct Ser	gtc Val	cga Arg 40	tcc Ser	tcc Ser	268
aaa Lys	gac Asp	gga Gly 45	aag Lys	ctg Leu	ctg Leu	gct Ala	gca Ala 50	acc Thr	ttg Leu	ctg Leu	ctg Leu	gca Ala 55	ctg Leu	ctg Leu	tct Ser	316
tgc Cys	tgc Cys 60	ctc Leu	acg Thr	gtg Val	gtg Val	tct Ser 65	ttc Phe	tac Tyr	cag Gln	gtg Val	gcc Ala 70	gcc Ala	ctg Leu	caa Gln	ggg Gly	364
gac Asp 75	ctg Leu	gcc Ala	agc Ser	ctc Leu	cgg Arg 80	gca Ala	gag Glu	ctg Leu	cag Gln	ggc Gly 85	cac His	cac His	gcg Ala	gag Glu	aag Lys 90	412
ctg Leu	cca Pro	gca Ala	gga Gly 95	gca Ala 95	gga Gly	gcc Ala	ccc Pro	aag Lys	gcc Ala 100	ggc Gly	ctg Leu	gag Glu	gaa Glu 105	gct Ala	cca Pro	460
gct Ala	gtc Val	acc Thr	gcg Ala 110	gga Gly	ctg Leu	aaa Lys	atc Ile	ttt Phe 115	gaa Glu	cca Pro	cca Pro	gct Ala 120	cca Pro	gga Gly	gaa Glu	508
ggc Gly	aac Asn	tcc Ser 125	agt Ser	cag Gln	aac Asn	agc Ser	aga Arg 130	aat Asn	aag Lys	cgt Arg	gcc Ala	gtt Val 135	cag Gln	ggt Gly	cca Pro	556
gaa Glu	gaa Glu 140	aca Thr	gtc Val	act Thr	caa Gln	gac Asp 145	tgc Cys	ttg Leu	caa Gln	ctg Leu	att Ile 150	gca Ala	gac Asp	agt Ser	gaa Glu	604
aca Thr 155	cca Pro	act Thr	ata Ile	caa Gln	aaa Lys 160	gga Gly	tct Ser	tac Tyr	aca Thr	ttt Phe 165	gtt Val	cca Pro	tgg Trp	ctt Leu	ctc Leu 170	652
agc Ser	ttt Phe	aaa Lys	agg Arg	gga Gly 175	agt Ser	gcc Ala	cta Leu	gaa Glu	gaa Glu 180	aaa Lys	gag Glu	aat Asn	aaa Lys	ata Ile 185	ttg Leu	700
gtc Val	aaa Lys	gaa Glu	act Thr 190	ggc Gly	tac Tyr	ttt Phe	ttt Phe	ata Ile 195	tat Tyr	ggc Gly	cag Gln	gtt Val	tta Leu 200	tat Tyr	act Thr	748
gat Asp	aag Lys	acc Thr 205	tac Tyr	gcc Ala	atg Met	gga Gly	cat His 210	cta Leu	att Ile	cag Gln	agg Arg	aag Lys 215	aag Lys	gtc Val	cat His	796
gtc Val	ttt Phe 220	ggg Gly	gat Asp	gaa Glu	ttg Leu	agt Ser 225	ctg Leu	gtg Val	act Thr	ttg Leu	ttt Phe 230	cga Arg	tgt Cys	att Ile	caa Gln	844
aat Asn 235	atg Met	cct Pro	gaa Glu	aca Thr	cta Leu 240	ccc Pro	aat Asn	aat Asn	tcc Ser	tgc Cys 245	tat Tyr	tca Ser	gct Ala	ggc Gly	att Ile 250	892
gca Ala	aaa Lys	ctg Leu	gaa Glu	gaa Glu 255	gga Gly	gat Asp	gaa Glu	ctc Leu	caa Gln 260	ctt Leu	gca Ala	ata Ile	cca Pro	aga Arg 265	gaa Glu	940

aat gca caa ata tca ctg gat gga gat gtc aca ttt ttt ggt gca ttg 988
Asn Ala Gln Ile Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala Leu
270 275 280

aaa ctg ctg tgacctactt acaccatgtc tgtagctatt ttcctccctt 1037
Lys Leu Leu
285

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aaaaaaaaagt agttaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1157

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<211> 285

<212> PRT

<213> Homo sapiens

<400> 2

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Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu
35 40 45

Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val
50 55 60

Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
65 70 75 80

Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly
85 90 95

Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu
100 105 110

Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn
115 120 125

Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln
130 135 140

Asp	Cys	Leu	Gln	Leu	Ile	Ala	Asp	Ser	Glu	Thr	Pro	Thr	Ile	Gln	Lys
145					150					155					160
Gly	Ser	Tyr	Thr	Phe	Val	Pro	Trp	Leu	Leu	Ser	Phe	Lys	Arg	Gly	Ser
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Ala	Leu	Glu	Glu	Lys	Glu	Asn	Lys	Ile	Leu	Val	Lys	Glu	Thr	Gly	Tyr
			180					185					190		
Phe	Phe	Ile	Tyr	Gly	Gln	Val	Leu	Tyr	Thr	Asp	Lys	Thr	Tyr	Ala	Met
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Gly	His	Leu	Ile	Gln	Arg	Lys	Lys	Val	His	Val	Phe	Gly	Asp	Glu	Leu
	210					215					220				
Ser	Leu	Val	Thr	Leu	Phe	Arg	Cys	Ile	Gln	Asn	Met	Pro	Glu	Thr	Leu
225					230					235					240
Pro	Asn	Asn	Ser	Cys	Tyr	Ser	Ala	Gly	Ile	Ala	Lys	Leu	Glu	Glu	Gly
				245					250					255	
Asp	Glu	Leu	Gln	Leu	Ala	Ile	Pro	Arg	Glu	Asn	Ala	Gln	Ile	Ser	Leu
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<210> 3

<211> 1139

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (52)..(978)

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Glu Ser Ala Lys Thr Leu Pro Pro Cys Leu Cys Phe Cys Ser Glu	
5 10 15	
aaa gga gaa gat atg aaa gtg gga tat gat ccc atc act ccg cag aag	153

Lys	Gly	Glu	Asp	Met	Lys	Val	Gly	Tyr	Asp	Pro	Ile	Thr	Pro	Gln	Lys	
20						25					30					
gag	gag	ggt	gcc	tgg	ttt	ggg	atc	tgc	agg	gat	gga	agg	ctg	ctg	gct	201
Glu	Glu	Gly	Ala	Trp	Phe	Gly	Ile	Cys	Arg	Asp	Gly	Arg	Leu	Leu	Ala	
35					40				45						50	
gct	acc	ctc	ctg	ctg	gcc	ctg	ttg	tcc	agc	agt	ttc	aca	gcg	atg	tcc	249
Ala	Thr	Leu	Leu	Leu	Ala	Leu	Leu	Ser	Ser	Ser	Phe	Thr	Ala	Met	Ser	
				55					60					65		
ttg	tac	cag	ttg	gct	gcc	ttg	caa	gca	gac	ctg	atg	aac	ctg	cgc	atg	297
Leu	Tyr	Gln	Leu	Ala	Ala	Leu	Gln	Ala	Asp	Leu	Met	Asn	Leu	Arg	Met	
			70					75					80			
gag	ctg	cag	agc	tac	cga	ggt	tca	gca	aca	cca	gcc	gcc	gcg	ggt	gct	345
Glu	Leu	Gln	Ser	Tyr	Arg	Gly	Ser	Ala	Thr	Pro	Ala	Ala	Ala	Gly	Ala	
		85					90					95				
cca	gag	ttg	acc	gct	gga	gtc	aaa	ctc	ctg	aca	ccg	gca	gct	cct	cga	393
Pro	Glu	Leu	Thr	Ala	Gly	Val	Lys	Leu	Leu	Thr	Pro	Ala	Ala	Pro	Arg	
	100					105					110					
ccc	cac	aac	tcc	agc	cgc	ggc	cac	agg	aac	aga	cgc	gct	ttc	cag	gga	441
Pro	His	Asn	Ser	Ser	Arg	Gly	His	Arg	Asn	Arg	Arg	Ala	Phe	Gln	Gly	
					120				125						130	
cca	gag	gaa	aca	gaa	caa	gat	gta	gac	ctc	tca	gct	cct	cct	gca	cca	489
Pro	Glu	Glu	Thr	Glu	Gln	Asp	Val	Asp	Leu	Ser	Ala	Pro	Pro	Ala	Pro	
				135					140					145		
tgc	ctg	cct	gga	tgc	cgc	cat	tct	caa	cat	gat	gat	aat	gga	atg	aac	537
Cys	Leu	Pro	Gly	Cys	Arg	His	Ser	Gln	His	Asp	Asp	Asn	Gly	Met	Asn	
			150					155					160			
ctc	aga	aac	atc	att	caa	gac	tgt	ctg	cag	ctg	att	gca	gac	agc	gac	585
Leu	Arg	Asn	Ile	Ile	Gln	Asp	Cys	Leu	Gln	Leu	Ile	Ala	Asp	Ser	Asp	
		165					170					175				
acg	ccg	act	ata	cga	aaa	gga	act	tac	aca	ttt	gtt	cca	tgg	ctt	ctc	633
Thr	Pro	Thr	Ile	Arg	Lys	Gly	Thr	Tyr	Thr	Phe	Val	Pro	Trp	Leu	Leu	
						185					190					
agc	ttt	aaa	aga	gga	aat	gcc	ttg	gag	gag	aaa	gag	aac	aaa	ata	gtg	681
Ser	Phe	Lys	Arg	Gly	Asn	Ala	Leu	Glu	Glu	Lys	Glu	Asn	Lys	Ile	Val	
					200					205					210	
gtg	agg	caa	aca	ggc	tat	ttc	ttc	atc	tac	agc	cag	gtt	cta	tac	acg	729
Val	Arg	Gln	Thr	Gly	Tyr	Phe	Phe	Ile	Tyr	Ser	Gln	Val	Leu	Tyr	Thr	
				215					220					225		
gac	ccc	atc	ttt	gct	atg	ggt	cat	gtc	atc	cag	agg	aag	aaa	gta	cac	777
Asp	Pro	Ile	Phe	Ala	Met	Gly	His	Val	Ile	Gln	Arg	Lys	Lys	Val	His	
			230					235					240			
gtc	ttt	ggg	gac	gag	ctg	agc	ctg	gtg	acc	ctg	ttc	cga	tgt	att	cag	825
Val	Phe	Gly	Asp	Glu	Leu	Ser	Leu	Val	Thr	Leu	Phe	Arg	Cys	Ile	Gln	
		245					250					255				
aat	atg	ccc	aaa	aca	ctg	ccc	aac	aat	tcc	tgc	tac	ttg	gct	ggc	atc	873
Asn	Met	Pro	Lys	Thr	Leu	Pro	Asn	Asn	Ser	Cys	Tyr	Leu	Ala	Gly	Ile	
		260				265					270					
gcg	agg	ctg	gaa	gaa	gga	gat	gag	att	cag	ctt	gca	att	cct	cgg	gag	921

Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro Arg Glu
275 280 285 290

aat gca cag att tca cgc aac gga gac gac acc ttc ttt ggt gcc cta 969
Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly Ala Leu
295 300 305

aaa ctg ctg taactcactt gctggagtgc gtgatccctt tcctctgtct 1018
Lys Leu Leu

tctctgtacc tccgagggag aaacagacga ctggaaaaat aaaagatggg gaaagccgtc 1078
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c 1139

<210> 4
<211> 309
<212> PRT
<213> Mus musculus

<400> 4
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Ser Glu Lys Gly Glu Asp Met Lys Val Gly Tyr Asp Pro Ile Thr Pro
20 25 30
Gln Lys Glu Glu Gly Ala Trp Phe Gly Ile Cys Arg Asp Gly Arg Leu
35 40 45
Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Ser Ser Phe Thr Ala
50 55 60
Met Ser Leu Tyr Gln Leu Ala Ala Leu Gln Ala Asp Leu Met Asn Leu
65 70 75 80
Arg Met Glu Leu Gln Ser Tyr Arg Gly Ser Ala Thr Pro Ala Ala Ala
85 90 95
Gly Ala Pro Glu Leu Thr Ala Gly Val Lys Leu Leu Thr Pro Ala Ala
100 105 110
Pro Arg Pro His Asn Ser Ser Arg Gly His Arg Asn Arg Arg Ala Phe
115 120 125
Gln Gly Pro Glu Glu Thr Glu Gln Asp Val Asp Leu Ser Ala Pro Pro
130 135 140

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Ala Pro Cys Leu Pro Gly Cys Arg His Ser Gln His Asp Asp Asn Gly
145 150 155 160

Met Asn Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp
165 170 175

Ser Asp Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp
180 185 190

Leu Leu Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys
195 200 205

Ile Val Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu
210 215 220

Tyr Thr Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys
225 230 235 240

Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys
245 250 255

Ile Gln Asn Met Pro Lys Thr Leu Pro Asn Asn Ser Cys Tyr Leu Ala
260 265 270

Gly Ile Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro
275 280 285

Arg Glu Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly
290 295 300

Ala Leu Lys Leu Leu
305

<210> 5

<211> 278

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> X = one or more naturally occurring amino acid residues.

<400> 5

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Xaa	Xaa	Lys	Xaa	Glu	Xaa	Met	Lys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
		20						25						30		
Xaa	Xaa	Xaa	Glu	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Asp	Gly	Xaa	Leu	
		35					40					45				
Leu	Ala	Ala	Thr	Leu	Leu	Leu	Ala	Leu	Leu	Ser	Xaa	Xaa	Xaa	Thr	Xaa	
	50					55					60					
Xaa	Ser	Xaa	Tyr	Gln	Xaa	Ala	Ala	Leu	Gln	Xaa	Asp	Leu	Xaa	Xaa	Leu	
65				70					75						80	
Arg	Xaa	Glu	Leu	Gln	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Pro	Ala	Xaa	Ala	
				85					90					95		
Gly	Ala	Pro	Xaa	Xaa	Thr	Ala	Gly	Xaa	Lys	Xaa	Xaa	Xaa	Pro	Xaa	Ala	
			100					105					110			
Pro	Xaa	Xaa	Xaa	Asn	Ser	Ser	Xaa	Xaa	Arg	Asn	Xaa	Arg	Ala	Xaa		
		115					120				125					
Gln	Gly	Pro	Glu	Glu	Thr	Xaa	Xaa	Gln	Asp	Cys	Leu	Gln	Leu	Ile	Ala	
	130					135					140					
Asp	Ser	Xaa	Thr	Pro	Thr	Ile	Xaa	Lys	Gly	Xaa	Tyr	Thr	Phe	Val	Pro	
145					150					155					160	
Trp	Leu	Leu	Ser	Phe	Lys	Arg	Gly	Ser	Ala	Leu	Glu	Glu	Lys	Glu	Asn	
				165				170						175		
Lys	Ile	Xaa	Val	Xaa	Xaa	Thr	Gly	Tyr	Phe	Phe	Ile	Tyr	Xaa	Gln	Val	
		180						185					190			
Leu	Tyr	Thr	Asp	Xaa	Xaa	Xaa	Ala	Met	Gly	His	Xaa	Ile	Gln	Arg	Lys	
		195					200					205				
Lys	Val	His	Val	Phe	Gly	Asp	Glu	Leu	Ser	Leu	Val	Thr	Leu	Phe	Arg	
	210				215						220					
Cys	Ile	Gln	Asn	Met	Pro	Xaa	Thr	Leu	Pro	Asn	Asn	Ser	Cys	Tyr	Ser	
225				230						235					240	
Ala	Gly	Ile	Ala	Xaa	Leu	Glu	Glu	Gly	Asp	Glu	Xaa	Gln	Leu	Ala	Ile	
			245					250						255		
Pro	Arg	Glu	Asn	Ala	Gln	Ile	Ser	Xaa	Xaa	Gly	Asp	Xaa	Thr	Phe	Phe	
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Gly	Ala	Leu	Lys	Leu	Leu											
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<210> 6

<211> 102

<212> PRT

<213> Consensus

<220>

<221> misc_feature

<223> X = one or more any naturally occurring amino acid residues.

<400> 6

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20 25 30
Phe Ile Tyr Ser Gln Val Xaa Phe Xaa Gly Gln Xaa Cys Pro Xaa Val
35 40 45
Xaa Leu Xaa His Xaa Val Xaa Val Xaa Tyr Pro Xaa Leu Leu Ser Xaa
50 55 60
Thr Xaa Cys Xaa Trp Xaa Ser Xaa Tyr Leu Gly Gly Val Phe Xaa Leu
65 70 75 80
Xaa Gly Asp Xaa Leu Tyr Val Asn Val Xaa Ser Xaa Phe Xaa Thr Phe
85 90 95
Phe Gly Leu Phe Lys Leu
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<210> 7

<211> 143

<212> PRT

<213> Homo sapiens

<400> 7

Glu Lys Lys Glu Leu Arg Lys Val Ala His Leu Thr Gly Lys Ser Asn
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Ser Arg Ser Met Pro Leu Glu Trp Glu Asp Thr Tyr Gly Ile Val Leu
20 25 30
Leu Ser Gly Val Lys Tyr Lys Lys Gly Gly Leu Val Leu Asn Glu Thr
35 40 45
Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys
50 55 60
Asn Asn Leu Pro Leu Ser His Lys Val Tyr Met Arg Asn Ser Lys Tyr
65 70 75 80
Pro Gln Asp Leu Val Met Met Glu Gly Lys Met Met Ser Tyr Cys Thr
85 90 95
Thr Gly Gln Met Trp Ala Arg Ser Ser Tyr Leu Gly Ala Val Phe Asn

			100							105						110			
Leu	Thr	Ser	Ala	Asp	His	Leu	Tyr	Val	Asn	Val	Ser	Glu	Leu	Ser	Leu				
		115					120					125							
Val	Asn	Phe	Glu	Glu	Ser	Gln	Thr	Phe	Phe	Gly	Leu	Tyr	Lys	Leu					
	130					135					140								

<210> 8
 <211> 143
 <212> PRT
 <213> Mus musculus

<400> 8

Glu	Lys	Lys	Glu	Pro	Arg	Ser	Val	Ala	His	Leu	Thr	Gly	Asn	Pro	His				
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Ser	Arg	Ser	Ile	Pro	Leu	Glu	Trp	Glu	Asp	Thr	Tyr	Gly	Thr	Ala	Leu				
			20					25					30						
Ile	Ser	Gly	Val	Lys	Tyr	Lys	Lys	Gly	Gly	Leu	Val	Ile	Asn	Glu	Thr				
		35					40					45							
Gly	Leu	Tyr	Phe	Val	Tyr	Ser	Lys	Val	Tyr	Phe	Arg	Gly	Gln	Ser	Cys				
	50					55					60								
Asn	Asn	Gln	Pro	Ile	Asn	His	Lys	Val	Tyr	Met	Arg	Asn	Ser	Lys	Tyr				
65				70						75					80				
Pro	Glu	Asp	Leu	Val	Leu	Met	Glu	Glu	Lys	Arg	Leu	Asn	Tyr	Cys	Thr				
			85					90						95					
Thr	Gly	Gln	Ile	Trp	Ala	His	Ser	Ser	Tyr	Leu	Gly	Ala	Val	Phe	Asn				
			100					105					110						
Leu	Thr	Ser	Ala	Asp	His	Leu	Val	Tyr	Asn	Ile	Ser	Gln	Leu	Ser	Leu				
		115					120					125							
Ile	Asn	Phe	Glu	Glu	Ser	Lys	Thr	Phe	Phe	Gly	Leu	Tyr	Lys	Leu					
	130					135					140								

<210> 9
 <211> 143
 <212> PRT
 <213> Rattus rattus

<400> 9

Glu	Thr	Lys	Lys	Pro	Arg	Ser	Val	Ala	His	Leu	Thr	Gly	Asn	Pro	Arg				
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Ser	Arg	Ser	Ile	Pro	Leu	Glu	Trp	Glu	Asp	Thr	Tyr	Gly	Thr	Ala	Leu				
			20					25					30						

Ile Ser Gly Val Lys Tyr Lys Lys Gly Gly Leu Val Ile Asn Glu Ala
35 40 45

Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys
50 55 60

Asn Ser Gln Pro Leu Ser His Lys Val Tyr Met Arg Asn Phe Lys Tyr
65 70 75 80

Pro Gly Asp Leu Val Leu Met Glu Glu Lys Lys Leu Asn Tyr Cys Thr
85 90 95

Thr Gly Gln Ile Trp Ala His Ser Ser Tyr Leu Gly Ala Val Phe Asn
100 105 110

Leu Thr Val Ala Asp His Leu Tyr Val Asn Ile Ser Gln Leu Ser Leu
115 120 125

Ile Asn Phe Glu Glu Ser Lys Thr Phe Phe Gly Leu Tyr Lys Leu
130 135 140

<210> 10

<211> 146

<212> PRT

<213> Homo sapiens

<400> 10

Gly Asp Gln Asn Pro Gln Ile Ala Ala Arg Val Ile Ser Glu Ala Ser
1 5 10 15

Ser Lys Thr Thr Ser Val Leu Gln Trp Ala Glu Lys Gly Tyr Tyr Thr
20 25 30

Met Ser Asn Asn Leu Val Thr Leu Glu Asn Gly Lys Gln Leu Thr Val
35 40 45

Lys Arg Gln Gly Leu Tyr Tyr Ile Tyr Ala Gln Val Thr Phe Cys Ser
50 55 60

Asn Arg Glu Ala Ser Ser Gln Ala Pro Phe Ile Ala Ser Leu Cys Leu
65 70 75 80

Lys Ser Pro Gly Arg Phe Glu Arg Ile Leu Leu Arg Ala Ala Asn Thr
85 90 95

His Ser Ser Ala Lys Pro Cys Gly Gln Gln Ser Ile His Leu Gly Gly
100 105 110

Val Phe Glu Leu Gln Pro Gly Ala Ser Val Phe Val Asn Val Thr Asp
115 120 125

Pro Ser Gln Val Ser His Gly Thr Gly Phe Thr Ser Phe Gly Leu Leu
130 135 140

Lys Leu
145

<210> 11
 <211> 146
 <212> PRT
 <213> Mus musculus

<400> 11

Gly Asp Glu Asp Pro Gln Ile Ala Ala His Val Val Ser Glu Ala Asn
 1 5 10 15
 Ser Asn Ala Ala Ser Val Leu Gln Trp Ala Lys Lys Gly Tyr Tyr Thr
 20 25 30
 Met Lys Ser Asn Leu Val Met Leu Glu Asn Gly Lys Gln Leu Thr Val
 35 40 45
 Lys Arg Glu Gly Leu Tyr Tyr Val Tyr Thr Gln Val Thr Phe Gln Ser
 50 55 60
 Asn Arg Glu Pro Ser Ser Gln Arg Pro Phe Ile Val Gly Leu Trp Leu
 65 70 75 80
 Lys Pro Ser Ile Gly Ser Glu Arg Ile Leu Leu Lys Ala Ala Asn Thr
 85 90 95
 His Ser Ser Ser Gln Leu Cys Glu Gln Gln Ser Val His Leu Gly Gly
 100 105 110
 Val Phe Glu Leu Gln Ala Gly Ala Ser Val Phe Val Asn Val Thr Glu
 115 120 125
 Ala Ser Gln Val Ile His Arg Val Gly Phe Ser Ser Phe Gly Leu Leu
 130 135 140
 Lys Leu
 145

<210> 12
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 12

Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr
 1 5 10 15
 Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys
 20 25 30
 Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu
 35 40 45
 Thr Gly Tyr Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr

50 55 60
Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly
65 70 75 80
Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro
85 90 95
Glu Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu
100 105 110
Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln
115 120 125
Ile Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
130 135 140

<210> 13

<211> 147

<212> PRT

<213> Mus musculus

<400> 13

Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Asp
1 5 10 15
Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp Leu Leu
20 25 30
Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys Ile Val
35 40 45
Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu Tyr Thr
50 55 60
Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys Val His
65 70 75 80
Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln
85 90 95
Asn Met Pro Lys Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile
100 105 110
Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro Arg Glu
115 120 125
Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly Ala Leu
130 135 140

Lys Leu Leu
145

<210> 14

<211> 160

<212> PRT

<213> Mus musculus

<400> 14

Gly	Lys	Pro	Glu	Ala	Gln	Pro	Phe	Ala	His	Leu	Thr	Ile	Asn	Ala	Ala
1				5					10					15	
Ser	Ile	Pro	Ser	Gly	Ser	His	Lys	Val	Thr	Leu	Ser	Ser	Trp	Tyr	His
			20					25					30		
Asp	Arg	Gly	Trp	Ala	Lys	Ile	Ser	Asn	Met	Thr	Leu	Ser	Asn	Gly	Lys
		35					40					45			
Leu	Arg	Val	Asn	Gln	Asp	Gly	Phe	Tyr	Tyr	Leu	Tyr	Ala	Asn	Ile	Cys
		50				55					60				
Phe	Arg	His	His	Glu	Thr	Ser	Gly	Ser	Val	Pro	Thr	Asp	Tyr	Leu	Gln
65					70					75					80
Leu	Met	Val	Tyr	Val	Val	Lys	Thr	Ser	Ile	Lys	Ile	Pro	Ser	Ser	His
				85					90					95	
Asn	Leu	Met	Lys	Gly	Gly	Ser	Thr	Lys	Asn	Trp	Ser	Gly	Asn	Ser	Glu
			100					105					110		
Phe	His	Phe	Tyr	Ser	Ile	Asn	Val	Gly	Gly	Phe	Phe	Lys	Leu	Arg	Ala
		115					120					125			
Gly	Glu	Glu	Ile	Ser	Ile	Gln	Val	Ser	Asn	Pro	Ser	Leu	Leu	Asp	Pro
		130				135					140				
Asp	Gln	Asp	Ala	Thr	Tyr	Phe	Gly	Ala	Phe	Lys	Val	Gln	Asp	Ile	Asp
145					150					155					160

<210> 15

<211> 160

<212> PRT

<213> Homo sapiens

<400> 15

Ser	Lys	Leu	Glu	Ala	Gln	Pro	Phe	Ala	His	Leu	Thr	Ile	Asn	Ala	Thr
1				5					10					15	
Asp	Ile	Pro	Ser	Gly	Ser	His	Lys	Val	Ser	Leu	Ser	Ser	Trp	Tyr	His
			20					25					30		
Asp	Arg	Gly	Trp	Ala	Lys	Ile	Ser	Asn	Met	Thr	Phe	Ser	Asn	Gly	Lys
		35					40					45			
Leu	Ile	Val	Asn	Gln	Asp	Gly	Phe	Tyr	Tyr	Leu	Tyr	Ala	Asn	Ile	Cys
		50				55					60				
Phe	Arg	His	His	Glu	Thr	Ser	Gly	Asp	Leu	Ala	Thr	Glu	Tyr	Leu	Gln
65					70					75					80

Leu Met Val Tyr Val Thr Lys Thr Ser Ile Lys Ile Pro Ser Ser His
85 90 95
Thr Leu Met Lys Gly Gly Ser Thr Lys Tyr Trp Ser Gly Asn Ser Glu
100 105 110
Phe His Phe Tyr Ser Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ser
115 120 125
Gly Glu Glu Ile Ser Ile Glu Val Ser Asn Pro Ser Leu Leu Asp Pro
130 135 140
Asp Gln Asp Ala Thr Tyr Phe Gly Ala Phe Lys Val Arg Asp Ile Asp
145 150 155 160

<210> 16

<211> 166

<212> PRT

<213> Homo sapiens

<400> 16

Glu Arg Gly Pro Gln Arg Val Ala Ala His Ile Thr Gly Thr Arg Gly
1 5 10 15
Arg Ser Asn Thr Leu Ser Ser Pro Asn Ser Lys Asn Glu Lys Ala Leu
20 25 30
Gly Arg Lys Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly His Ser Phe
35 40 45
Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His Glu Lys
50 55 60
Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Glu
65 70 75 80
Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln Tyr Ile Tyr
85 90 95
Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys Ser Ala Arg
100 105 110
Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr Ser Ile Tyr
115 120 125
Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile Phe Val Ser
130 135 140
Val Thr Asn Glu His Leu Ile Asp Met Asp His Glu Ala Ser Phe Phe
145 150 155 160
Gly Ala Phe Leu Val Gly
165

<210> 17

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<211> 172

<212> PRT

<213> Mus musculus

<400> 17

Gly Gly Arg Pro Gln Lys Val Ala Ala His Ile Thr Gly Ile Thr Arg
1 5 10 15
Arg Ser Asn Ser Ala Leu Ile Pro Ile Ser Lys Asp Gly Lys Thr Leu
20 25 30
Gly Gln Lys Ile Glu Ser Trp Glu Ser Ser Arg Lys Gly His Ser Phe
35 40 45
Leu Asn His Val Leu Phe Arg Asn Gly Glu Leu Val Ile Glu Gln Glu
50 55 60
Gly Leu Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Ala
65 70 75 80
Glu Asp Ala Ser Lys Met Val Ser Lys Asp Lys Val Arg Thr Lys Gln
85 90 95
Leu Val Gln Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Val
100 105 110
Leu Met Lys Ser Ala Arg Asn Ser Cys Trp Ser Arg Asp Ala Glu Tyr
115 120 125
Gly Leu Tyr Ser Ile Tyr Gln Gly Gly Leu Phe Glu Leu Lys Lys Asn
130 135 140
Asp Arg Ile Phe Val Ser Val Thr Asn Glu His Leu Met Asp Leu Asp
145 150 155 160
Gln Glu Ala Ser Phe Phe Gly Ala Phe Leu Ile Asn
165 170

<210> 18

<211> 143

<212> PRT

<213> Homo sapiens

<400> 18

Arg Ala Pro Phe Lys Lys Ser Trp Ala Tyr Leu Gln Val Ala Lys His
1 5 10 15
Leu Asn Lys Thr Lys Leu Ser Trp Asn Lys Asp Gly Ile Leu His Gly
20 25 30
Val Arg Tyr Gln Asp Gly Asn Leu Val Ile Gln Phe Pro Gly Leu Tyr
35 40 45

Phe Ile Ile Cys Gln Leu Gln Phe Leu Val Gln Cys Pro Asn Asn Ser
50 55 60
Val Asp Leu Lys Leu Glu Leu Leu Ile Asn Lys His Ile Lys Lys Gln
65 70 75 80
Ala Leu Val Thr Val Cys Glu Ser Gly Met Gln Thr Lys His Val Tyr
85 90 95
Gln Asn Leu Ser Gln Phe Leu Leu Asp Tyr Leu Gln Val Asn Thr Thr
100 105 110
Ile Ser Val Asn Val Asp Thr Phe Gln Tyr Ile Asp Thr Ser Thr Phe
115 120 125
Pro Leu Glu Asn Val Leu Ser Ile Phe Leu Tyr Ser Asn Ser Asp
130 135 140

<210> 19

<211> 143

<212> PRT

<213> Mus musculus

<400> 19

Ser Thr Pro Ser Lys Lys Ser Trp Ala Tyr Leu Gln Val Ser Lys His
1 5 10 15
Leu Asn Asn Thr Lys Leu Ser Trp Asn Glu Asp Gly Thr Ile His Gly
20 25 30
Leu Ile Tyr Gln Asp Gly Asn Leu Ile Val Gln Phe Pro Gly Leu Tyr
35 40 45
Phe Ile Val Cys Gln Leu Gln Phe Leu Val Gln Cys Ser Asn His Ser
50 55 60
Val Asp Leu Thr Leu Gln Leu Leu Ile Asn Ser Lys Ile Lys Lys Gln
65 70 75 80
Thr Leu Val Thr Val Cys Glu Ser Gly Val Gln Ser Lys Asn Ile Tyr
85 90 95
Gln Asn Leu Ser Gln Phe Leu Leu His Tyr Leu Gln Val Asn Ser Thr
100 105 110
Ile Ser Val Arg Val Asp Asn Phe Gln Tyr Val Asp Thr Asn Thr Phe
115 120 125
Pro Leu Asp Asn Val Leu Ser Val Phe Leu Tyr Ser Ser Ser Asp
130 135 140

<210> 20

<211> 163

<212> PRT

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<213> Homo sapiens

<400> 20

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Asp Leu Ser Pro Gly Leu Pro Ala Ala His Leu Ile Gly Ala Pro Leu
1          5          10          15
Lys Gly Gln Gly Leu Gly Trp Glu Thr Thr Lys Glu Gln Ala Phe Leu
          20          25          30
Thr Ser Gly Thr Gln Phe Ser Asp Ala Glu Gly Leu Ala Leu Pro Gln
          35          40          45
Asp Gly Leu Tyr Tyr Leu Tyr Cys Leu Val Gly Tyr Arg Gly Arg Ala
50          55          60
Pro Pro Gly Gly Gly Asp Pro Gln Gly Arg Ser Val Thr Leu Arg Ser
65          70          75          80
Ser Leu Tyr Arg Ala Gly Gly Ala Tyr Gly Pro Gly Thr Pro Glu Leu
          85          90          95
Leu Leu Glu Gly Ala Glu Thr Val Thr Pro Val Leu Asp Pro Ala Arg
          100          105          110
Arg Gln Gly Tyr Gly Pro Leu Trp Tyr Thr Ser Val Gly Phe Gly Gly
          115          120          125
Leu Val Gln Leu Arg Arg Gly Glu Arg Val Tyr Val Asn Ile Ser His
          130          135          140
Pro Asp Met Val Asp Phe Ala Arg Gly Lys Thr Phe Phe Gly Ala Val
145          150          155          160
Met Val Gly

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<210> 21

<211> 159

<212> PRT

<213> Mus musculus

<400> 21

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Asp Leu Asn Pro Glu Leu Pro Ala Ala His Leu Ile Gly Ala Trp Met
1          5          10          15
Ser Gly Gln Gly Leu Ser Trp Glu Ala Ser Gln Glu Glu Ala Phe Leu
          20          25          30
Arg Ser Gly Ala Gln Phe Ser Pro Thr His Gly Leu Ala Leu Pro Gln
          35          40          45
Asp Gly Val Tyr Tyr Leu Tyr Cys His Val Gly Tyr Arg Gly Arg Thr
50          55          60
Pro Pro Ala Gly Arg Ser Arg Ala Arg Ser Leu Thr Leu Arg Ser Ala

```

```

65              70              75              80
Leu Tyr Arg Ala Gly Gly Ala Tyr Gly Arg Gly Ser Pro Glu Leu Leu
                        85                      90
Leu Glu Gly Ala Glu Thr Val Thr Pro Val Val Asp Pro Ile Gly Tyr
                        100                     105                     110
Gly Ser Leu Trp Tyr Thr Ser Val Gly Phe Gly Gly Leu Ala Gln Leu
                        115                     120                     125
Arg Ser Gly Glu Arg Val Tyr Val Asn Ile Ser His Pro Asp Met Val
                        130                     135                     140
Asp Tyr Arg Arg Gly Lys Thr Phe Phe Gly Ala Val Met Val Gly
145                      150                      155

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<210> 22

<211> 149

<212> PRT

<213> Homo sapiens

<400> 22

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Ala His Ser Thr Leu Lys Pro Ala Ala His Leu Ile Gly Asp Pro Ser
1              5              10
Lys Gln Asn Ser Leu Leu Trp Arg Ala Asn Thr Asp Arg Ala Phe Leu
              20              25              30
Gln Asp Gly Phe Ser Leu Ser Asn Asn Ser Leu Leu Val Pro Thr Ser
              35              40              45
Gly Ile Tyr Phe Val Tyr Ser Gln Val Val Phe Ser Gly Lys Ala Tyr
50              55              60
Ser Pro Lys Ala Thr Ser Ser Pro Leu Tyr Leu Ala His Glu Val Gln
65              70              75              80
Leu Phe Ser Ser Gln Tyr Pro Phe His Val Pro Leu Leu Ser Ser Gln
              85              90              95
Lys Met Val Tyr Pro Gly Leu Gln Glu Pro Trp Leu His Ser Met Tyr
              100             105             110
His Gly Ala Ala Phe Gln Leu Thr Gln Gly Asp Gln Leu Ser Thr His
              115             120             125
Thr Asp Gly Ile Pro His Leu Val Leu Ser Pro Ser Thr Val Phe Phe
130             135             140
Gly Ala Phe Ala Leu
145

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<210> 23

<211> 149

<212> PRT

<213> Mus musculus

<400> 23

Thr His Gly Ile Leu Lys Pro Ala Ala His Leu Val Gly Tyr Pro Ser
1 5 10 15
Lys Gln Asn Ser Leu Leu Trp Arg Ala Ser Thr Asp Arg Ala Phe Leu
20 25 30
Arg His Gly Phe Ser Leu Ser Asn Asn Ser Leu Leu Ile Pro Thr Ser
35 40 45
Gly Leu Tyr Phe Val Tyr Ser Gln Val Val Phe Ser Gly Glu Ser Cys
50 55 60
Ser Pro Arg Ala Ile Pro Thr Pro Ile Tyr Leu Ala His Glu Val Gln
65 70 75 80
Leu Phe Ser Ser Gln Tyr Pro Phe His Val Pro Leu Leu Ser Ala Gln
85 90 95
Lys Ser Val Tyr Pro Gly Leu Gln Gly Pro Trp Val Arg Ser Met Tyr
100 105 110
Gln Gly Ala Val Phe Leu Leu Ser Lys Gly Asp Gln Leu Ser Thr His
115 120 125
Thr Asp Gly Ile Ser His Leu His Phe Ser Pro Ser Ser Val Phe Phe
130 135 140
Gly Ala Phe Ala Leu
145

<210> 24

<211> 152

<212> PRT

<213> Homo sapiens

<400> 24

Arg Thr Pro Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro Gln
1 5 10 15
Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu Leu
20 25 30
Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu Val Val Pro Ser Glu
35 40 45
Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys
50 55 60
Pro Ser Thr His Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala Val
65 70 75 80

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<210> 25
<211> 29
<212> PRT
<213> Artificial

<220>
<223> Description of Artificial Sequence:AGP-3 RELATED PROTEIN
<220>
<221> misc_feature
<223> Positions 11, 16, 19, X = any naturally occurring amino acid resi
due

<400> 25
Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Xaa Thr Pro Thr Ile Xaa
1          5          10          15
Lys Gly Xaa Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe
          20          25

<210> 26
<211> 25
<212> PRT
<213> Artificial

<220>
<223> Description of Artificial Sequence:CONSENSUS
<220>

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<223> Position 5, X = any naturally occurring amino acid residue.

Ala Met Gly His Xaa Ile Gln Arg Lys Lys Val His Val Phe Gly Asp
1 5 10 15
Glu Leu Ser Leu Val Thr Leu Phe Arg
20 25

<213> Artificial

<223> Description of Artificial Sequence:CONSENSUS

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<221> misc_feature
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<400> 27

Gln 1	Asp	Cys	Leu	Gln 5	Leu	Ile	Ala	Asp	Ser 10	Xaa	Thr	Pro	Thr	Ile 15	Xaa
Lys	Gly	Xaa	Tyr 20	Thr	Phe	Val	Pro	Trp 25	Leu	Leu	Ser	Phe	Lys 30	Arg	Gly
Xaa	Ala	Leu 35	Glu	Glu	Lys	Glu	Asn 40	Lys	Ile	Xaa	Val	Xaa 45	Xaa	Thr	Gly
Tyr	Phe 50	Phe	Ile	Tyr	Xaa	Gln 55	Val	Leu	Tyr	Thr	Asp 60	Xaa	Xaa	Xaa	Ala
Met 65	Gly	His	Xaa	Ile	Gln 70	Arg	Lys	Lys	Val	His 75	Val	Phe	Gly	Asp	Glu 80
Leu	Ser	Leu	Val	Thr 85	Leu	Phe	Arg	Cys	Ile 90	Gln	Asn	Met	Pro	Xaa 95	Thr
Leu	Pro	Asn	Asn 100	Ser	Cys	Tyr	Ser	Ala 105	Gly	Ile	Ala	Xaa	Leu 110	Glu	Glu
Gly	Asp	Glu 115	Xaa	Gln	Leu	Ala	Ile 120	Pro	Arg	Glu	Asn	Ala 125	Gln	Ile	Ser
Xaa	Xaa	Gly	Asp	Xaa	Thr	Phe	Phe	Gly	Ala	Leu	Lys	Leu	Leu		

130	135	140
<210> 28		
<211> 20		
<212> DNA		
<213> Mus musculus		
<400> 28		
aattaaccct cactaaaggg		20
<210> 29		
<211> 33		
<212> DNA		
<213> Mus musculus		
<400> 29		
tctccctcga gatcacgcac tccagcaagt gag		33
<210> 30		
<211> 24		
<212> DNA		
<213> Mus musculus		
<400> 30		
aacaggctat ttcttcatct acag		24
<210> 31		
<211> 25		
<212> DNA		
<213> Mus musculus		
<400> 31		
ctcatcaatg tatcttatca tgtct		25
<210> 32		
<211> 25		
<212> DNA		

<213> Mus musculus

<400> 32
ctcatcaatg tatcttatca tgtct

25

<210> 33

<211> 20

<212> DNA

<213> Mus musculus

<400> 33
agccgcggcc acaggaacag

20

<210> 34

<211> 19

<212> DNA

<213> Mus musculus

<400> 34
tggatgacat gacccatag

19

<210> 35

<211> 7

<212> PRT

<213> Homo sapiens

<400> 35

Met Asn Ser Arg Asn Lys Arg
1 5

<210> 36

<211> 60

<212> DNA

<213> Homo sapiens

<400> 36
atttgattct agaaggagga ataacatatg aacagccgta ataagcgtgc cgttcagggt

60

<210> 37
 <211> 45
 <212> DNA
 <213> Homo sapiens

<400> 37
 ccgcggatcc tcgagttaca gcagtttcaa tgcaccaaaa aatgt

45

<210> 38
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 38
 Met Asp Tyr Lys Asp Asp Asp Asp Lys Lys Leu Asn Ser Arg Asn Lys
 1 5 10 15

Arg

<210> 39
 <211> 48
 <212> DNA
 <213> Homo sapiens

<400> 39
 gacgatgaca agaagcttaa cagccgtaat aagcgtgccg ttcagggt

48

<210> 40
 <211> 151
 <212> PRT
 <213> Mus musculus

<400> 40
 Gln Asn Ser Ser Asp Lys Pro Val Ala His Val Val Ala Asn His Gln
 1 5 10 15
 Val Glu Glu Gln Leu Glu Trp Leu Ser Gln Arg Ala Asn Ala Leu Leu
 20 25 30

Ala Asn Gly Met Asp Leu Lys Asp Asn Gln Leu Val Val Pro Ala Asp
35 40 45

Gly Leu Tyr Leu Val Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys
50 55 60

Pro Asp Tyr Val Leu Leu Thr His Thr Val Ser Arg Phe Ala Ile Ser
65 70 75 80

Tyr Gln Glu Lys Val Asn Leu Leu Ser Ala Val Lys Ser Pro Cys Pro
85 90 95

Lys Asp Thr Pro Glu Gly Ala Glu Leu Lys Pro Trp Tyr Glu Pro Ile
100 105 110

Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Gln Leu Ser Ala
115 120 125

Glu Val Asn Leu Pro Lys Tyr Leu Asp Phe Ala Glu Ser Gly Gln Val
130 135 140

Tyr Phe Gly Val Ile Ala Leu
145 150

<210> 41

<211> 1340

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (28)..(906)

<400> 41

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Met Ser Gly Leu Gly Arg Ser Arg Arg
1 5

ggt ggc cgg agc cgt gtg gac cag gag gag cgc ttt cca cag ggc ctg 102
Gly Gly Arg Ser Arg Val Asp Gln Glu Glu Arg Phe Pro Gln Gly Leu
10 15 20 25

tgg aca ggg gtg gct atg aga tcc tgc ccc gaa gag cag tac tgg gat 150
Trp Thr Gly Val Ala Met Arg Ser Cys Pro Glu Glu Gln Tyr Trp Asp
30 35 40

cct ctg ctg ggt acc tgc atg tcc tgc aaa acc att tgc aac cat cag 198
Pro Leu Leu Gly Thr Cys Met Ser Cys Lys Thr Ile Cys Asn His Gln
45 50 55

agc cag cgc acc tgt gca gcc ttc tgc agg tca ctc agc tgc cgc aag 246
Ser Gln Arg Thr Cys Ala Ala Phe Cys Arg Ser Leu Ser Cys Arg Lys
60 65 70

gag caa ggc aag ttc tat gac cat ctc ctg agg gac tgc atc agc tgt	294
Glu Gln Gly Lys Phe Tyr Asp His Leu Leu Arg Asp Cys Ile Ser Cys	
75 80 85	
gcc tcc atc tgt gga cag cac cct aag caa tgt gca tac ttc tgt gag	342
Ala Ser Ile Cys Gly Gln His Pro Lys Gln Cys Ala Tyr Phe Cys Glu	
90 95 100 105	
aac aag ctc agg agc cca gtg aac ctt cca cca gag ctc agg aga cag	390
Asn Lys Leu Arg Ser Pro Val Asn Leu Pro Pro Glu Leu Arg Arg Gln	
110 115 120	
cgg agt gga gaa gtt gaa aac aat tca gac aac tcg gga agg tac caa	438
Arg Ser Gly Glu Val Glu Asn Asn Ser Asp Asn Ser Gly Arg Tyr Gln	
125 130 135	
gga ctg gag cac aga ggc tca gaa gca agt cca gct ctc ccg ggg ctg	486
Gly Leu Glu His Arg Gly Ser Glu Ala Ser Pro Ala Leu Pro Gly Leu	
140 145 150	
aag ctg agt gca gat cag gtg gcc ctg gtc tac agc acg ctg ggg ctc	534
Lys Leu Ser Ala Asp Gln Val Ala Leu Val Tyr Ser Thr Leu Gly Leu	
155 160 165	
tgc ctg tgt gcc gtc ctc tgc tgc ttc ctg gtg gcg gtg gcc tgc ttc	582
Cys Leu Cys Ala Val Leu Cys Cys Phe Leu Val Ala Val Ala Cys Phe	
170 175 180 185	
ctc aag atg agg ggg gat ccc tgc tcc tgc cag ccc cgc tca agg ccc	630
Leu Lys Met Arg Gly Asp Pro Cys Ser Cys Gln Pro Arg Ser Arg Pro	
190 195 200	
cgt caa agt ccg gcc aag tct tcc cag gat cac gcg atg gaa gcc ggc	678
Arg Gln Ser Pro Ala Lys Ser Ser Gln Asp His Ala Met Glu Ala Gly	
205 210 215	
agc cct gtg agc aca tcc ccc gag cca gtg gag acc tgc agc ttc tgc	726
Ser Pro Val Ser Thr Ser Pro Glu Pro Val Glu Thr Cys Ser Phe Cys	
220 225 230	
ttc cct gag tgc agg gcg ccc acg cag gag agc gca gtc acg cct ggg	774
Phe Pro Glu Cys Arg Ala Pro Thr Gln Glu Ser Ala Val Thr Pro Gly	
235 240 245	
acc ccc gac ccc act tgt gct gga agg tgg ggg tgc cac acc agg acc	822
Thr Pro Asp Pro Thr Cys Ala Gly Arg Trp Gly Cys His Thr Arg Thr	
250 255 260 265	
aca gtc ctg cag cct tgc cca cac atc cca gac agc ggc ctt ggc att	870
Thr Val Leu Gln Pro Cys Pro His Ile Pro Asp Ser Gly Leu Gly Ile	
270 275 280	
gtg tgt gtg cct gcc cag gag ggg ggc cca ggt gca taaatggggg	916
Val Cys Val Pro Ala Gln Glu Gly Gly Pro Gly Ala	
285 290	
tcagggaggg aaaggaggag ggagagagat ggagaggagg ggagagagaa agagaggtgg	976
ggagagggga gagagatatg aggagagaga gacagaggag gcagagaggg agagaaacag	1036
aggagacaga gagggagaga gagacagagg gagagagaga cagagaggaa gagaggcaga	1096
gagggaaaga ggcagagaag gaaagagaca ggcagagaag gagagaggca gagagggaga	1156

gaggcagaga gggagagagg cagagagaca gagagggaga gagggacaga gagagataga 1216
gcaggagggtc ggggcactct gagtcccagt tcccagtgca gctgtaggtc gtcacacacct 1276
aaccacacgt gcaataaagt cctcgtgcct gctgctcaca gcccccgaga gcccctcctc 1336
ctgg 1340

<210> 42

<211> 293

<212> PRT

<213> Homo sapiens

<400> 42

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
1 5 10 15

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
20 25 30

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
35 40 45

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
50 55 60

Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
65 70 75 80

His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
85 90 95

Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
100 105 110

Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
115 120 125

Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
130 135 140

Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
145 150 155 160

Ala Leu Val Tyr Ser Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys
165 170 175

Cys Phe Leu Val Ala Val Ala Cys Phe Leu Lys Met Arg Gly Asp Pro
180 185 190

Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala Lys Ser
195 200 205

Ser Gln Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr Ser Pro
210 215 220

Glu Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg Ala Pro
225 230 235 240

Thr Gln Glu Ser Ala Val Thr Pro Gly Thr Pro Asp Pro Thr Cys Ala
245 250 255

Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val Leu Gln Pro Cys Pro
260 265 270

His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys Val Pro Ala Gln Glu
275 280 285

Gly Gly Pro Gly Ala
290

<210> 43

<211> 291

<212> PRT

<213> Homo sapiens

<400> 43

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
1 5 10 15

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
20 25 30

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
35 40 45

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
50 55 60

Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
65 70 75 80

His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
85 90 95

Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val

100					105					110					
Asn	Leu	Pro	Pro	Glu	Leu	Arg	Arg	Gln	Arg	Ser	Gly	Glu	Val	Glu	Asn
		115					120					125			
Asn	Ser	Asp	Asn	Ser	Gly	Arg	Tyr	Gln	Gly	Leu	Glu	His	Arg	Gly	Ser
		130				135					140				
Glu	Ala	Ser	Pro	Ala	Leu	Pro	Gly	Leu	Lys	Leu	Ser	Ala	Asp	Gln	Val
145					150					155					160
Ala	Val	Tyr	Ser	Thr	Leu	Gly	Leu	Cys	Leu	Cys	Ala	Val	Leu	Cys	Cys
				165					170					175	
Phe	Leu	Val	Ala	Val	Ala	Cys	Phe	Leu	Lys	Met	Arg	Gly	Asp	Pro	Cys
			180					185					190		
Ser	Cys	Gln	Pro	Arg	Ser	Arg	Pro	Arg	Gln	Ser	Pro	Ala	Lys	Ser	Ser
		195					200					205			
Gln	Asp	His	Ala	Met	Glu	Ala	Gly	Ser	Pro	Val	Ser	Thr	Ser	Pro	Glu
	210					215					220				
Pro	Val	Glu	Thr	Cys	Ser	Phe	Cys	Phe	Pro	Glu	Cys	Arg	Ala	Pro	Thr
225					230					235					240
Gln	Glu	Ser	Ala	Val	Thr	Pro	Gly	Thr	Pro	Asp	Thr	Cys	Ala	Gly	Arg
				245					250					255	
Trp	Gly	Cys	His	Thr	Arg	Thr	Thr	Val	Leu	Gln	Pro	Cys	Pro	His	Ile
			260					265					270		
Pro	Asp	Ser	Gly	Leu	Gly	Ile	Val	Cys	Gly	Pro	Ala	Gln	Glu	Gly	Gly
		275				280						285			
Pro	Gly	Ala													
		290													

<210> 44

<211> 32

<212> PRT

<213> Homo sapiens

<400> 44

Met	Ser	Gly	Leu	Gly	Arg	Ser	Arg	Arg	Gly	Gly	Arg	Ser	Arg	Val	Asp
1				5					10					15	

Gln	Glu	Glu	Arg	Phe	Pro	Gln	Gly	Leu	Trp	Thr	Gly	Val	Ala	Met	Arg
			20					25					30		

<210> 45

<211> 37

<212> PRT

<213> Homo sapiens

<400> 45

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
1 5 10 15

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
20 25 30

Phe Cys Arg Ser Leu
35

<210> 46

<211> 38

<212> PRT

<213> Homo sapiens

<400> 46

Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp His Leu Leu Arg Asp
1 5 10 15

Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His Pro Lys Gln Cys Ala
20 25 30

Tyr Phe Cys Glu Asn Lys
35

<210> 47

<211> 57

<212> PRT

<213> Homo sapiens

<400> 47

Leu Arg Ser Pro Val Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser
1 5 10 15

Gly Glu Val Glu Asn Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu
20 25 30

Glu His Arg Gly Ser Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu
35 40 45

Ser Ala Asp Gln Val Ala Val Tyr Ser
50 55

<210> 48

<211> 21

<212> PRT

<213> Homo sapiens

<400> 48

Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys Cys Phe Leu Val Ala
 1 5 10 15
 Val Ala Cys Phe Leu
 20

<210> 49

<211> 106

<212> PRT

<213> Homo sapiens

<400> 49

Lys Met Arg Gly Asp Pro Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg
 1 5 10 15
 Gln Ser Pro Ala Lys Ser Ser Gln Asp His Ala Met Glu Ala Gly Ser
 20 25 30
 Pro Val Ser Thr Ser Pro Glu Pro Val Glu Thr Cys Ser Phe Cys Phe
 35 40 45
 Pro Glu Cys Arg Ala Pro Thr Gln Glu Ser Ala Val Thr Pro Gly Thr
 50 55 60
 Pro Asp Thr Cys Ala Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val
 65 70 75 80
 Leu Gln Pro Cys Pro His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys
 85 90 95
 Gly Pro Ala Gln Glu Gly Gly Pro Gly Ala
 100 105

<210> 50

<211> 32

<212> DNA

<213> Homo sapiens

<400> 50

tctccaagct tccgatacctg agtaatgagt gg

32

<210> 51

<211> 34

<212> DNA

<213> Homo sapiens

<400> 51

tctccgcggc cgcgctgtag accagggcca cctg

34

<210> 52

<211> 6

<212> PRT

<213> Homo sapiens

<400> 52

Gly Ala Leu Lys Leu Leu
1 5